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## *Curriculum Vitae*

# *John W. Watson*

*Date and Place of Birth: Baton Rouge, LA May 23, 1948*

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### *Education*

*Associate of Science, 1968, Gulf Coast Junior College, Zoology  
Bachelor of Science, 1970, University of West Florida, Zoology  
Master of Science, 1974, University of West Florida, Ethology*

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### *Professional Employment*

*May 1996-Present*

***Team Leader, Harvesting Systems and Engineering Team***, NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Pascagoula, MS. Responsible for carrying out the mission of the organization in the most economical manner, using sound management practice. Communicating goals and objectives to supervised employees, administering leave, evaluating performance, developing job performance standards, and recruiting and training employees. Supervise fishing fleet surveys, conduct shipboard observer projects, develop selective harvesting systems, provide for engineering and gear development, and maintenance support for shipboard resource, habitat and special surveys.

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*August 1980-May 1996*

***Chief, Harvesting Systems Branch***, NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Pascagoula, MS. Supervised a professional research team of fishery biologist and gear specialist performing research into critical problems of fisheries resource management. Developed and applied new techniques for the solution of important problems in fisheries science. Supervised research dealing with the mechanics, design, and operational function of various types of harvesting and sampling gear including shrimp and fish trawls, longlines, traps, and specialized gear. Supervised studies of gear performance and animal behavior in response to harvesting and sampling gears to achieve harvesting and conservation goals. Responsible for carrying out the mission of the Harvesting Systems Branch in the most economical manner, communicating goals and objectives to employees, evaluating performance, employee counseling on career goals, developing job performance standards, and recruiting and training personnel.

June, 1979-Aug. 1980

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**Acting Manager, Harvesting Technology Branch**, National Marine Fisheries Service, Southeast Fisheries Center, Pascagoula, MS. Responsible for directing and administering two major research projects, conservation engineering and habitat surveys. Responsible for program planning, budgeting, and management of project funds, vessel scheduling, contracts, and personnel management to accomplish project activities and establish project guidelines and objectives of project missions. Coordinated and applied expertise in behavioral biology and fisheries gear technology to achieve effective development of conservation and sampling systems and data on endangered species habitat.

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Oct, 1975-June, 1979

**Project Leader, Conservation Engineering Project**, National Marine Fisheries Service, Pascagoula, MS. Planned, directed, and evaluated design and testing of hardware and techniques to conserve natural resources, and coordinated design and modification of sampling gear with engineers, biologist, and gear specialist. Assisted in planning, coordination, and direction of all projects of the Harvesting Technology Program and served as Field Party Chief on scientific cruises.

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## *Significant Contributions*

- 1973 - Assisted in development of midwater artificial reefs in the Gulf of Mexico.
- 1976 - Determined the first quantified efficiency value ( $q$ ) for a sampling trawl.  
Developed scuba diving and photographic techniques for fishing systems evaluations.
- 1977 - Developed a selective shrimp trawl design for the U.S. penaeid shrimp fishery.
- 1980 - Developed the first prototype turtle excluder device (TED).
- 1984 - Published a comprehensive summary of shrimp trawl designs employed in the Southeastern U.S.
- 1985 - Developed sampling gear standards for SEAMAP resource surveys.
- 1986 - Co-produced and directed a comprehensive film on shrimp trawling gear and techniques used in the Southeastern U.S.  
Published a comprehensive summary of research on selective shrimp trawl design in the U.S. for FAO expert consultation.
- 1988 - Supervised the development of trawling gear and techniques to

- sample and harvest coastal pelagic fish in the Gulf of Mexico.*
- Supervised the development, certification, and introduction of turtle excluder devices (TEDS), which have significantly reduced incidental mortality of endangered sea turtles in shrimp trawls.*
- 1989 - Published results of the first comprehensive study of fish behavior in relation to shrimp trawling gear in the Southeastern U.S.*
- 1990 - Co-developed the first prototype extended funnel bycatch reduction device (BRD).*
- 1992 - Assisted in drafting "Responsible Fishing Code of Ethics", FAO Rome.*
- 1990 - 1994 - Supervised the development and evaluation of bycatch reduction devices (BRDs) for reduction of finfish bycatch in shrimp trawls.*
- 1995 - Supervised the development of artificial reefs as refuge for juvenile red snapper.*
- 1997 - Co-developed a selective harvesting seine for the catfish aquaculture industry.*
- 1998- Supervised introduction of BRD technology into commercial shrimp fishery.*
- 1999- Supervised development of improved BRD design technology*
- 2001-2002- Supervised the development of pelagic longline fishing gear and fishing techniques to reduce the bycatch of endangered sea turtles.*

## *International Experience*

- 1986 - Participated in FAO expert consultation on fishing gear design.*
- 1986 - 1996 - Oral presentations ICES, Denmark, World Symposium on Fishing Gear, Newfoundland, FAO conference, Mexico, FAO conference, Rome, Bycatch conference, Australia, International workshops in Brazil, Australia, Canada and Mexico.*
- 1990 - 1994 - Invited lecturer on fish behavior, Marine Fisheries Institute, Newfoundland, Canada.*
- 1992 - FAO Rome, Assisted in drafting "Responsible Fishing Code of Ethics.*
- 1995 - Conducted cooperative bycatch research with New South Wales Fisheries Research Institute.*
- 1995 - Invited to participate as expert on International Energy Agency Executive Committee initiative on Efficient Use of Energy in Fish Harvesting.*
- 1996 - Member of international Bycatch Advisory Network.*
- 1996 - Invited to lecture on fish behavior at Australian Maritime College.*
- 1997 - Invited by Queensland Dept. Of Primary Industries to conduct workshops and consult with Australian fishery managers in implementation of shrimp trawl bycatch reduction gear..*

*1997 - Request from Norway Institute of marine Research to work with Norwegian Scientist, Arill Engas on fish behavior during one year sabbatical to U.S.*

*1997 - Request from Venezuela Fondo Nacional de Investigaciones Agropecuarias for one year sabbatical for Dr. Jese Javier Alio to work on BRD research.*

*1998 - Participated in FAO International Expert Consultation on Sustainable Fishing Technologies and Practices, St. John's Newfoundland, Canada at the invitation of FAO.*

*1998 - Conducted Collaborative BRD research in the Spencer Gulf, Australia at the request of the Spencer Gulf & West Coast Prawn Fishermen's Association.*

*1999- Conducted collaborative research in the Spencer Gulf, Australia*

*2000- Invited lecturer at Pacific Coast Shrimp Cooperative Association workshop in Parksville, British Columbia.*

*2002- Participated in U.S. Norway fisheries consultations in Bergen, Norway*  
*Participated in the 2<sup>nd</sup> International Fishers Forum in Honolulu, Hawaii*

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### *Honors and Awards*

*Bureau of Commercial Fisheries Personal Commendation*  
*NOAA Certificate of Recognition*  
*NOAA Unit Citation*  
*NOAA Superior Performance Awards*  
*Department of Commerce Bronze Medal Award*  
*Department of Commerce Silver Medal Award*  
*Marine Fisheries Review Best Paper Nomination*  
*Outstanding Performance ratings 1989 - 2002*  
*Work Cited in 104th Congressional Record*  
*NOAA Employee of the Month November 2002*

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### *Oral Presentations*

*Over 100 oral presentations have been given at regional, national, and international meetings on sampling, harvesting, and conservation gear and techniques including:*

*ICES meetings, Denmark*  
*FAO meetings, Rome, Mexico and Canada*  
*World Fishing Gear Symposium ( Rappateur), Canada*

*Symposia and Workshops, U.S., Australia, Brazil, Canada, and Mexico*  
*Gulf of Mexico Fishery Management Council meetings*  
*South Atlantic Fishery Management Council meetings*  
*Gulf and South Atlantic Commission meetings*  
*U.S. Norway Fisheries Consultations*  
*2<sup>nd</sup> International Fishers Forum*

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## *Publications and Reports*

- Watson, J.W. 1972. Observation on the responses of the instar stages of Callinectes sapidus (Rathburn) to light. ASB Bulletin Vol. 19, No.2, p108.
- Wickham, D.A., Watson, J.W. and L.H. Ogren. 1973. The efficacy of midwater artificial for attracting pelagic sportfish. Tran. Amer. Fish. Soc. Vol. 102-No.3, pp 563-572.
- Watson, J.W. 1974. Electric shrimp trawl catch efficiency estimated in situ, and predicted with a mathematical model derived from electrical stimulation responses of Penaeus duorarum and Penaeus aztecus. Masters Thesis, University of West Florida.
- Watson, J.W. 1976. Electrical shrimp trawl catch efficiency for Penaeus duorarum and Penaeus aztecus. Trans. Amer. Fish. Soc. Vol 105, No.1. pp 135-148.
- Wickham, D.A. and J W. Watson. 1976. Scuba diving methods for fishing systems evaluation. Mar. Fish. Rev.1192 Vol. 38, No.7. pp15-23.
- Ogren, L.H., Watson, J.W. and D.A.Wickham. 1977. Loggerhead sea turtles (Caretta caretta) encountering shrimp trawls. Mar. Fish. Rev. 1270, Vol 39, No.11, pp15-17.
- Watson, J.W. and C. McVea. 1977. Development of a selective shrimp trawl for the southeastern United States penaeid shrimp fisheries. Mar. Fish. Rev. 1267 Vol.. 39, No.10, pp 18-24
- Seidel, W.R. and J.W. Watson. 1978. A trawl design: employing electricity to selectively capture shrimp. Mar. Fish. Rev. 1325 Vol 40, No. 9, pp 21-23.
- Hillestad, H.O., Richardson, J. I., McVea, C. and J.W. Watson. 1979. Worldwide incidental capture of sea turtles. World Conference on Sea Turtle Conservation. Nov. 1979.
- Watson, J.W. and W.R. Seidel. 1980. Evaluation of techniques to decrease sea turtle mortalities in the southeastern United States shrimp fishery. ICES CM. 1980/B:31.
- Watson, J.W. 1982. Construction, installation and handling procedures for the National Marine Fisheries Services's sea turtle excluder device. NOAA Technical Memorandum,

NMFS-SEFC-71.

Watson, J.W., Workman, I.K., Taylor, C.W. and A.F. Serra. 1984. Fishing configurations of common shrimp trawl designs employed in Southeastern United States waters. NOAA Technical Memorandum NMFS-3.

Blott, A.J. and J.W. Watson. 1984. Comparison of model trawl test results in a flume tank and a tow tank. *Oceans* 84.

Watson, J.W. and N. Bane. 1985. SEAMAP shrimp and bottomfish sampling gear workshop (Proceedings) Number 12, August 1985. Gulf States Marine Fisheries Commission.

Workman, I.K., Landry, A.M., Watson, J.W. and J.W. Blackwell. 1985. A midwater fish attraction device study conducted from Hydrolab. *Bull. Mar Sci.* 37(1).

Watson, J.W. and W.R. Seidel. 1985. Techniques and methodology for calibrating shrimp and bottomfish sampling gear. Proceedings of the SEAMAP sampling gear workshop. GSMC. No 12.

Watson, J.W. Mitchell, J.F. and A.K. Shah. 1986. Trawling Efficiency device, a new concept for selective shrimp trawling gear. *Mar. Fish. Rev.* 48(1).

Watson, J.W. and C.W. Taylor. 1986. Research on selective shrimp trawl designs for penaeid shrimp in the United States. FAO expert consultation on selective shrimp trawl development. Mazatlan, Mexico, Nov. 1986.

Workman, I.K., Watson, J.W. and J.F. Mitchell. 1986. Underwater methods and equipment used by fishing gear researchers in the southeastern United States to study and evaluate trawling gear. FAO expert consultation on selective shrimp trawl development. Mazatlan, Mexico, Nov. 1986.

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Watson, J.W. 1988. Southeast TED Experience. Conference Proceedings. Gear Selectivity as a Management Tool. MIT Sea Grant Publication MITSG-86-18, 57 p.

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- Watson, J.W. 1989. Fish behavior and trawl design: Potential for selective trawl development. World Symposium on Fishing Gear and Fishing Vessel Design Proceedings. Marine Institute, St. John's, Newfoundland, Canada.
- Mitchell, J.F., Lohoefer, R. and J.W. Watson. 1989. A method for evaluating the exclusion of juvenile sea turtles from turtle excluder devices (TEDs). Ninth Annual Workshop on Sea Turtle Conservation and Biology, Jekyll Island, GA, February 1989.
- Watson, J.W. 1989. Marine fisheries and engineering and technology annual review. Marine Technology Society.
- Watson, J.W. and C. W. Taylor. 1990. Research on selective shrimp trawl designs for penaeid shrimp in the United States. Proceedings of the Fisheries Conservation Engineering Workshop. Apr. 1990, Rhode Island Sea Grant, Univ. of Rhode Island Publication NO. P1202.
- Mitchell, J.F., Watson, J.W., Seidel, W.R. and A. Shah. 1990. An alternate protocol for the qualification of new turtle excluder devices. Proc. 10th Annual Workshop Sea Turtles Conser. Biol. NOAA Tech. Mem. NMFS-SEFC. 1990.
- Watson, J.W., Workman, I.K. and B.D. Hataway. 1992. The behavior of fish and shrimp encountering trawls in the Southeastern U.S. penaeid shrimp fishery. MTS '92 Proceedings, October 19-21, Washington D.C. pp. 336-341.
- Watson, J.W. 1992. Status of knowledge in the United States relating fish behavior to the reduction of bycatch. Proceedings of the International Conference on Bycatch in the Shrimp Industry. May 24 -27, Lake Buena Vista, FL. Southeastern Fisheries Assoc.
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- Workman, I.K. and J.W. Watson. 1995. Using trawlable webbing reefs as a step in the certification of shrimp trawl bycatch reduction devices. Proceedings of the International Conference on Ecological System Enhancement Technology for Aquatic Environments, Tokyo, Japan.
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- Watson, J., D. Foster, S. Epperly, and A. Shah. 2002. Experiments in the Western Atlantic northeast distant waters to evaluate sea turtle mitigation measures in the pelagic longline fishery. NOAA Fisheries, Southeast Fisheries Science Center Report, May, 2002, Mississippi Laboratories, P.O. Drawer 1207, Pascagoula, MS 39567.



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## *Professional References*

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